

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

**In Re Application of:**

**F. Soner Terek, Ajay Kalhan,  
Nagavamsi Ponnekanti, Srikumar Rangarajan  
and Michael J. Zwilling**

**Confirmation No.: Not Yet Assigned**

**Application No.: Not Yet Assigned**

**Group Art Unit: Not Yet Assigned**

**Filing Date: Herewith**

**Examiner: Not Yet Assigned**

**For: SYSTEMS AND METHODS FOR FRAGMENT-BASED SERIALIZATION**

**EXPRESS MAIL LABEL NO: EV251841230US  
DATE OF DEPOSIT: April 9, 2004**

Commissioner for Patents  
P.O. Box 1450  
Alexandria, VA 22313-1450

Dear Sir:

**INFORMATION DISCLOSURE STATEMENT**

Pursuant to 37 CFR § 1.56 and in accordance with 37 CFR §§ 1.97-1.98, information relating to the above-identified application is hereby disclosed. Inclusion of information in this statement is not to be construed as an admission that this information is material as that term is defined in 37 CFR § 1.56(b).

In accordance with § 1.97(b), since this Information Disclosure Statement is being filed either within three months of the filing date of the above-identified application, within three months of the date of entry into the national stage of the above identified application as set forth in § 1.491, before the mailing date of a first Office Action on the merits of the above-identified application, or before the mailing date of a first Office Action after the filing of request for continued examination under § 1.114, no additional fee is required.

In accordance with § 1.129(a), this Information Disclosure Statement is being filed in connection with  the first or  second After Final Submission, therefore:

Certification in Accordance with § 1.97(e) is attached; or

The fee of \$180.00 as set forth in § 1.17(p) is attached.

In accordance with § 1.97(c), this Information Disclosure Statement is being filed after the period set forth in § 1.97(b) above but before the mailing date of either a Final Action under § 1.113 or a Notice of Allowance under § 1.311, or before an action that otherwise closes prosecution in the application, therefore:

Certification in Accordance with § 1.97(e) is attached; or

The fee of \$180.00 as set forth in § 1.17(p) is attached.

In accordance with § 1.97(d), this Information Disclosure Statement is being filed after the mailing date of either a Final Action under § 1.113 or a Notice of Allowance under § 1.311 but before, or simultaneously with, the payment of the Issue Fee, therefore included are: Certification in Accordance with § 1.97(e); and the submission fee of \$180.00 as set forth in § 1.17(p).

Copies of each of the references listed on the attached Form PTO-1449 are enclosed herewith.

Copies of references listed on the attached Form PTO-1449 are enclosed herewith EXCEPT THAT:

Copies of references listed on the attached Form PTO 1449 are not required to be submitted pursuant to the June 30, 2003 recent revisions to 37 CFR § 1.98(a)(2)(i).

- In view of the voluminous nature of references [list as appropriate], and the likelihood that these references are available to the Examiner, copies are not enclosed herewith.
- In accordance with § 1.98(d), copies of the following references listed on the attached Form PTO-1449 are not enclosed herewith because they were previously cited by or submitted to the U.S. Patent and Trademark Office in patent application(s) for which a claim for priority under 35 U.S.C. § 120 have been made in the instant application:
- Copies of references [list as appropriate] listed on the attached Form PTO-1449 were previously cited by or submitted to the Patent and Trademark Office in prior Application No. , filed .

Please charge any deficiency or credit any overpayment to Deposit Account No. 23-3050.

This form is submitted in duplicate.

- The relevance of those listed references which are not in the English language is as follows:
- There are no listed references which are not in the English language.

In addition to the other art of record, the inventors are aware of serialization formats in competing products, namely in ORACLE® database software that allows storage of objects, and in IBM DB2® database software. A description of the latter is currently available on the internet at [www.acm.org/sigmod/disc/p\\_implementationofyostw.htm](http://www.acm.org/sigmod/disc/p_implementationofyostw.htm), and a printed copy of this website is attached as a reference to this IDS.

Also, in addition to the XML serialization and the storage engine record serialization described in the background section of this application, the inventors are aware of a Common Language Runtime (“CLR”) native serialization format created by MICROSOFT® Corporation.

Date: **April 9, 2004**

  
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<b>Form PTO-1449 Modified</b>  List of Patent and Publications Cited by Applicant (Use several sheets if necessary)  U.S. Department of Commerce Patent and Trademark Office	Docket No.  MSFT-2955/307064.01	Application No.  Not Yet Assigned
	<b>Applicant</b> <b>F. Soner Terek, Ajay Kalhan, Nagavamsi Ponnekanti, Srikumar Rangarajan and Michael J. Zwilling</b>	
	Filing Date Herewith	Group Not Yet Assigned
	Confirmation No. Not Yet Assigned	

**OTHER DOCUMENTS (Including Author, Title, Date, Pertinent Pages, Etc.)**

1	Berg, C., "How Do I Create Persistent Java Objects?" <i>Dr. Dobb's J.</i> , 1997, 22(4), 98-101
2	Chien, A.A., "Concurrent Aggregates (CA) – Design and Experience with a Concurrent Object – Oriented Language Based on Aggregates," <i>J. Parallel and Distributed Computing</i> , 1995, 25(2), 174-196
3	Darby, C., "Object Serialization in Java 1.1. Making Objects Persistent," <i>WEB Techniques</i> , 1997, 2(9), 55, 58-59
4	Haverlock, K., "Object Serialization, Java, and C++," <i>Dr. Dobb's J.</i> , 1998, 23(8), 32, 34, 36-37
5	Lim, J.B. et al., "Transaction Processing in Mobile, Heterogeneous Database Systems," <i>IEEE Trans. on Knowledge and Data Engineering</i> , 2002, 14(6), 1330-1346
6	Fuh, Y-C. et al., "Implementation of SQL3 Structured Types with Inheritance and Value Substitutability," <i>Digital Symposium Collection 2000</i> , 2000, Abstract only, 2 pages, <a href="http://www.acm.org/sigmod/disc/p_implementatioyostw.htm">www.acm.org/sigmod/disc/p_implementatioyostw.htm</a>

<b>EXAMINER</b>	<b>DATE CONSIDERED</b>
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**U. S. PATENT DOCUMENTS**

<b>Examiner Initial</b>		<b>Document No.</b>	<b>Date</b>	<b>Name</b>	<b>Class</b>	<b>Subclass</b>
	7	10/692,225	10/23/03	Venkatesh et al.		
	8	10/775,282	02/10/04	Venkatesh et al.		
	9	10/776,371	02/10/04	Carlin et al.		

**FOREIGN PATENT DOCUMENTS**

<b>Examiner Initial</b>		<b>Document No.</b>	<b>Date</b>	<b>Country</b>	<b>Translation</b>	
					<b>YES</b>	<b>NO</b>

<b>EXAMINER</b>	<b>DATE CONSIDERED</b>